Who is most at risk of HIV infection? Detailed data tables and technical notes

Technical notes:

Background on HIV reporting system

On January 1, 1999 the Massachusetts Department of Public Health (MDPH) started requiring clinical providers to submit case report forms with demographic and risk information about individuals diagnosed with HIV infection, as they had been doing for AIDS since 1983. Existing cases of diagnosed HIV infection through 1998 also were to be reported by the end of 1999. These cases are labeled "pre-1999" in the following analyses. New, as well as previously diagnosed HIV infections, continue to be reported. When comparing pre-1999 HIV diagnoses to HIV diagnoses 1999 through 2004, one should consider the differences in HIV reporting requirements for these two time periods. Since HIV diagnoses were not reported at the time of diagnosis prior to 1999 and clinical providers were given a relatively short time frame within which to report all prevalent HIV cases, the pre-1999 data are considered less complete than data reported after 1999. Additionally, pre-1999 HIV diagnoses do not include people who were diagnosed with HIV infection and who died before 1999 without being reported with AIDS, nor do they include individuals who were no longer receiving HIV-related health care in Massachusetts at the point when HIV (non-AIDS) reporting became mandatory.

Caveats of the data

While trends in diagnosis of HIV infection are our best indicator for those who are most at risk of HIV infection, HIV surveillance reflects the incidence of diagnoses among people who are in care and not the actual incidence of new infections. Like AIDS diagnoses, HIV diagnoses are not a direct measure of incidence of infection itself. People may be living with HIV for many years prior to being tested and seeking care, at which point the case is considered a "diagnosis" and reported to the MDPH HIV/AIDS Surveillance Program. Furthermore, as with early data for AIDS cases, the data from the first few years of a new reporting system can be unstable, and caution should be used in interpretation. During the time a data reporting system is in its infancy, there is a greater likelihood that fluctuations in data are attributable to reporting patterns and clinician education efforts rather than actual changes in disease incidence.

Additionally, one must consider the effects of reporting lag when reviewing the preliminary 2004 HIV infection diagnoses. Although Massachusetts regulations require providers to submit HIV case reports in a timely fashion, many 2004 HIV diagnoses will be reported to the surveillance program after the release of this Epidemiologic Profile. Thirty-five percent of HIV diagnoses from 2001-2003 were reported more than 6 months after diagnosis. Thus, the 2004 HIV data presented in this report may represent a substantial undercount. Therefore, although the data that follow report a decline in the number of HIV diagnoses in the past year, it is likely that the true incidence of HIV

diagnosis is yet to be established. Analyses suggest that the distribution of HIV diagnoses by race/ethnicity, gender and exposure mode for cases reported more than 6 months after diagnosis is not substantially different than the distribution of HIV cases reported within 6 months.

Table 1. People diagnosed with HIV infection by gender and year of diagnosis: Massachusetts, before 1999, 1999 - 2004¹

	Male		Female		
	N	%	N	%	Total
< 1999	15,709	77%	4,639	23%	20,348
1999	914	69%	402	31%	1,316
2000	797	70%	347	30%	1,144
2001	695	70%	293	30%	988
2002	700	68%	330	32%	1,030
2003	626	70%	270	30%	896
2003 2004 ²	587	70%	257	30%	844

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table 2. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts, before 1999, 1999-2004¹

	White	NH	Black	k NH	Hisp	anic	Al	기	AI/	AN	Total ²
	N	%	N	%	N	%	N	%	N	%	
< 1999	11,243	55%	4,752	23%	4,180	21%	101	<1%	26	<1%	20,348
1999	554	42%	393	30%	333	25%	20	2%	3	<1%	1,316
2000	450	39%	392	34%	270	24%	25	2%	2	<1%	1,144
2001	406	41%	321	32%	230	23%	26	3%	2	<1%	988
2002	406	39%	349	34%	240	23%	21	2%	2	<1%	1,030
2003	355	40%	287	32%	228	25%	13	1%	0	0%	896
2004 ³	318	38%	270	32%	228	27%	12	1%	2	<1%	844

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² 2004 data are preliminary

² Totals include people with unspecified race/ethnicity

³ 2004 data are preliminary

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table 3. *Males* diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts, before 1999, 1999-2004¹

	White	e NH	Black	(NH	Hispa	anic	AP	I	Al/A	۸N	Total ²
	N	%	N	%	N	%	N	%	N	%	
< 1999	9.473	60%	3,168	20%	2,932	19%	85	1%	19	<1%	15,709
1999	433	47%	233	25%	227	25%	12	1%	1	<1%	914
2000	362	45%	221	28%	187	23%	23	3%	0	0%	797
2001	332	48%	178	26%	161	23%	21	3%	1	<1%	695
2002	332	47%	183	26%	160	23%	14	2%	2	<1%	700
2003	307	49%	158	25%	146	23%	10	2%	0	0%	626
2004 ³	274	47%	150	26%	149	25%	7	1%	0	0%	587

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Table 4. *Females* diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts, before 1999, 1999-2004¹

	White	NH	Black	k NH	Hispa	anic	AF	PI	Al/A	AΝ	Total ²
	N	%	N	%	N	%	N	%	N	%	
< 1999	1,770	38%	1,584	34%	1,248	27%	16	<1%	7	<1%	4,639
1999	121	30%	160	40%	106	26%	8	2%	2	<1%	402
2000	88	25%	171	49%	83	24%	2	1%	2	1%	347
2001	74	25%	143	49%	69	24%	5	2%	1	<1%	293
2002	74	22%	166	50%	80	24%	7	2%	0	0%	330
2003	48	18%	129	48%	82	30%	3	1%	0	0%	270
2004 ³	44	17%	120	47%	79	31%	5	2%	2	1%	257

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Totals include people with unspecified race/ethnicity

³ 2004 data are preliminary

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native

² Totals include people with unspecified race/ethnicity

³ 2004 data are preliminary

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table 5. People diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts, before 1999, 1999 – 2004¹

	US		Puerto R US Depend	_	Non-U	S	
	N	%	N	%	N	%	Total
< 1999	15,837	15,837 78% 912 69%		12%	2,074	10%	20,348
1999	912	69%	164	12%	240	18%	1,316
2000	734	64%	122	11%	288	25%	1,144
2001	619	63%	110	11%	259	26%	988
2002	611	59%	101	10%	318	31%	1,030
2003	566	63%	85	9%	245	27%	896
2004 ³	534	63%	88	10%	222	26%	844

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Table 6. *Males* diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts, before 1999, 1999 – 2004¹

	US		Puerto Ric Depende	•	Non-U	IS	
	N	%	N	%	N	%	Total
< 1999	12,526	80%	1,740	11%	1,443	9%	15,709
1999	673	74%	116	13%	125	14%	914
2000	539			11%	167	21%	797
2001	459	66%	75	11%	161	23%	695
2002	455	65%	67	10%	178	25%	700
2003	436	70%	50	8%	140	22%	626
2004 ³	418	71%	52	9%	117	20%	587

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

² Ninety-five percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, and 4% were born in an unknown dependency

³2004 data are preliminary

² Ninety-five percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, and 4% were born in an unknown dependency³ 2004 data are preliminary

Table 7. *Females* diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts, before 1999, 1999 – 2004¹

	US		Puerto Ric Depende		Non-U	S	
	N	%	N	%	N	%	Total
< 1999	3,311	71%	697	15%	631	14%	4,639
1999	239	59%	48	12%	115	29%	402
2000	195	56%	31	9%	121	35%	347
2001	160	55%	35	12%	98	33%	293
2002	156	47%	34	10%	140	42%	330
2003	130	48%	35	13%	105	39%	270
2004 ²	116	45%	36	14%	105	41%	257

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Table 8. People diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts, before 1999, 1999-2004¹

	MS	М	ID	U	MS ID	_	нт	SX	Oth	er	Pre HTS	_		leter ned ³	Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
<1999	7,573	37%	7,156	35%	835	4%	2,024	10%	667	3%	1,357	7%	635	3%	20,348
1999	370	28%	388	29%	30	2%	191	15%	10	1%	257	20%	63	5%	1,316
2000	342	30%	242	21%	21	2%	186	16%	14	1%	260	23%	75	7%	1,144
2001	301	30%	202	20%	23	2%	154	16%	7	1%	220	22%	80	8%	988
2002	322	31%	172	17%	23	2%	160	16%	7	1%	247	24%	95	9%	1,030
2003	300	33%	134	15%	23	3%	98	11%	7	1%	204	23%	123	14%	896
2004 ⁴	262	31%	135	16%	11	1%	89	11%	7	1%	191	23%	145	17%	844

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Ninety-five percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, and 4% were born in an unknown dependency³ 2004 data are preliminary

² Heterosexual sex with partners with unknown risk and HIV status

³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up

⁴ 2004 data are preliminary

MSM = male-to-male sex; IDU = injection drug use; MSM/IDU = male-to-male sex and injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table 9. *Males* diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts, before 1999, 1999-2004¹

	MS	М	ID	U	MS ID	-	нт	SX	Oth	er	Pre HTS		_	eter ned ³	Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
<1999	7,573	48%	5,018	32%	835	5%	562	4%	480	3%	739	5%	502	3%	15,709
1999	370	40%	269	29%	30	3%	64	7%	9	1%	124	14%	48	5%	914
2000	342	43%	165	21%	21	3%	64	8%	12	2%	132	17%	61	8%	797
2001	301	43%	145	21%	23	3%	63	9%	3	0%	109	16%	51	7%	695
2002	322	46%	120	17%	23	3%	53	8%	6	1%	118	17%	58	8%	700
2003	300	48%	94	15%	23	4%	39	6%	10	2%	85	14%	75	12%	626
2004 ⁴	262	45%	86	15%	11	2%	38	6%	5	1%	83	14%	102	17%	587

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Note: The category of "presumed heterosexual" is used in Massachusetts to re-assign people who are reported with no identified risk but who are known not to have reported any other risks except heterosexual sex with a partner of unknown HIV status or risk. Massachusetts uses this category to distinguish these cases from other undetermined cases about which we know less. Nationally, the Centers for Disease Control and Prevention categorizes "presumed heterosexual" cases as "no identified risk". As such, comparisons of the presumed heterosexual category cannot be made to national data. Caution should be used in interpreting data for presumed heterosexual, as it is still not clear what the exposure risk is for people in this category. Although a person may not report other risk behaviors such as injection drug use or male-to-male sex to his/her health care provider, it does not necessarily mean that he/she has not engaged in them. There are many barriers to disclosing HIV risk behaviors in the health care setting such as a limited patient-provider relationship or stigma.

² Heterosexual sex with partners with unknown risk and HIV status

³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up
⁴ 2004 data are preliminary

MSM = male-to-male sex; IDU = injection drug use; MSM/IDU = male-to-male sex and injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk

Table 10. *Females* diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts, before 1999, 1999-2004¹

	IDI	J	нт	SX	Oth	er	Pre HTS	_	Unde mine		Total
	N	%	N	%	N	%	N	%	N	%	N
<1999	2,138	46%	1,462	32%	288	6%	618	13%	133	3%	4,639
1999	119	30%	127	32%	8	2%	133	33%	15	4%	402
2000	77	22%	122	35%	6	2%	128	37%	14	4%	347
2001	57	19%	91	31%	5	2%	111	38%	29	10%	293
2002	52	16%	107	32%	5	2%	129	39%	37	11%	330
2003	40	15%	59	22%	4	1%	119	44%	48	18%	270
2004 ⁴	49	19%	51	20%	6	2%	108	42%	43	17%	257

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Heterosexual sex with partners with unknown risk and HIV status

³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up ⁴ 2004 data are preliminary

MSM = male-to-male sex; IDU = injection drug use; MSM/IDU = male-to-male sex and injection drug use; HTSX = heterosexual sex; Pres. HTSX = presumed heterosexual; NIR = No Identified Risk

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

iabic	<1-4. <1		13 to		osed 20 to		25 to		30 to		35 to		40 to		45 to		50 50		Total
Year	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
<1999	368	2%	248	1%	1,351	7%	3,573	18%	5061	25%	4,367	21%	2,797	14%	1,367	7%	1,216	6%	20,348
1999	13	1%	19	1%	60	5%	137	10%	286	22%	308	23%	231	18%	143	11%	119	9%	1,316
2000	9	1%	27	2%	61	5%	139	12%	202	18%	279	24%	197	17%	104	9%	126	11%	1,144
2001	6	1%	14	1%	43	4%	108	11%	194	20%	230	23%	174	18%	127	13%	92	9%	988
2002	8	1%	21	2%	70	7%	119	12%	182	18%	217	21%	184	18%	110	11%	119	12%	1,030
2003	9	1%	11	1%	52	6%	88	10%	154	17%	192	21%	162	18%	112	13%	116	13%	896
2004 ²	8	1%	15	2%	56	7%	88	10%	126	15%	168	20%	147	17%	109	13%	127	15%	844

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
 2004 data are preliminary
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table	Table 15. Males diagnosed with HIV infection by age at diagnosis: Massachusetts, 1999-2004															ļ ¹			
	<1	3	13 to	19	20 to	24	25 to	29	30 to	34	35 to	39	40 to	44	45 to	49	50)+	Total
Year	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
<1999	203	1%	151	1%	854	5%	2,641	17%	3,879	25%	3,526	22%	2,331	15%	1,136	7%	988	6%	15,709
1999	6	1%	6	1%	35	4%	76	8%	210	23%	224	25%	172	19%	102	11%	83	9%	914
2000	5	1%	13	2%	29	4%	84	11%	142	18%	195	24%	145	18%	82	10%	102	13%	797
2001	3	0%	9	1%	18	3%	74	11%	130	19%	178	26%	122	18%	91	13%	70	10%	695
2002	3	0%	11	2%	40	6%	70	10%	121	17%	152	22%	133	19%	77	11%	93	13%	700
2003	5	1%	8	1%	35	6%	52	8%	106	17%	148	24%	113	18%	71	11%	88	14%	626
2004 ²	3	1%	6	1%	33	6%	53	9%	82	14%	129	22%	106	18%	78	13%	97	17%	587

Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

²2004 data are preliminary
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

	<1	3	13 tc	19	20 to	o 24	25 to	o 29	30 to	34	35 to	o 39	40 to	o 44	45 to	o 49	50	+	Tota
Year	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
<1999	165	4%	97	2%	497	11%	932	20%	1,182	25%	841	18%	466	10%	231	5%	228	5%	4,639
1999	7	2%	13	3%	25	6%	61	15%	76	19%	84	21%	59	15%	41	10%	36	9%	402
2000	4	1%	14	4%	32	9%	55	16%	60	17%	84	24%	52	15%	22	6%	24	7%	347
2001	3	1%	5	2%	25	9%	34	12%	64	22%	52	18%	52	18%	36	12%	22	8%	293
2002	5	2%	10	3%	30	9%	49	15%	61	18%	65	20%	51	15%	33	10%	26	8%	330
2003	4	1%	3	1%	17	6%	36	13%	48	18%	44	16%	49	18%	41	15%	28	10%	270
2004 ²	5	2%	9	4%	23	9%	35	14%	44	17%	39	15%	41	16%	31	12%	30	12%	257

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis ² 2004 data are preliminary

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table 17. People diagnosed with HIV infection by Health Service Region (HSR) 1: Massachusetts, 1999-2004²

	Bost	ton	Cen	tral	Metro	west	North	east	South	east	West	ern	Priso	ns³	Total⁴
Year	N	%	N	%	N	%	N	%	N	%	N	%	N	%	Ν
<1999	7,050	35%	1,770	9%	2,494	12%	2,751	14%	2,872	14%	2,342	12%	1,061	5%	20,348
1999	381	29%	90	7%	156	12%	192	15%	191	15%	187	14%	118	9%	1,316
2000	370	32%	84	7%	149	13%	152	13%	175	15%	149	13%	65	6%	1,144
2001	306	31%	64	6%	114	12%	153	15%	166	17%	133	13%	52	5%	988
2002	363	35%	91	9%	143	14%	149	14%	139	13%	102	10%	43	4%	1,030
2003	308	34%	93	10%	116	13%	135	15%	109	12%	107	12%	28	3%	896
2004 ⁵	254	30%	75	9%	110	13%	139	16%	113	13%	129	15%	24	3%	844

Reflects the health service region of a person's residence at the time of report (not necessarily current residence); See Epidemiologic Profile General Appendices, Health Service Region Maps, available at http://www.mass.gov/dph/aids/research/profile2005/app5 hrs maps.pdf for configuration of health service regions.

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

³ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility.

⁴ Totals include 9 people of unknown HSR ⁵ 2004 data are preliminary

People diagnosed with HIV infection within the three-year period 2002-2004

Table 18. People diagnosed with HIV infection by gender and race/ethnicity: Massachusetts, 2002-2004¹

	Male	!	Femal	le
Race/Ethnicity:	N	%	N	%
White Non-Hispanic	913	48%	166	19%
Black Non-Hispanic	491	26%	415	48%
Hispanic	455	24%	241	28%
Asian/Pacific Islander American Indian/Alaska Native	31 2	2% <1%	15 2	2% <1%
Unknown	21	1%	18	2%
Total	1,913	100%	857	100%

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

Table 19. People diagnosed with HIV infection by gender and exposure mode: Massachusetts, 2002-2004¹

	Male	•	Femal	le
Exposure Mode:	N	%	N	%
Male-to-Male Sex (MSM)	884	46%	N/A	N/A
Injection Drug Use (IDU)	300	16%	141	16%
MSM/IDU	57	3%	N/A	N/A
Heterosexual Sex	130	7%	217	25%
Other	21	1%	15	2%
Total Undetermined	521	27%	484	56%
 Presumed Heterosexual Sex² 	286	15%	356	42%
 Undetermined³ 	235	12%	128	15%
Total	1,913	100%	857	100%

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data as of 7/1/05

² Heterosexual sex with partners with unknown risk and HIV status

³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up;

N/A = Not Applicable; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table 20. People diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts, 2002-2004²

	US		Puerto US Depe		Non	-US	Total
Race/Ethnicity:	N	%	N	%	N	%	N
White NH	999	93%	4	<1%	76	7%	1,079
Black NH	422	47%	4	<1%	480	53%	906
Hispanic	244	35%	266	38%	186	27%	696
APÍ	11	24%	0	0%	35	76%	46

¹ Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers

Table 21. *Males* diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts, 2002-2004²

	US		Puerto Ri Depende	_	Non-l	JS	Total
Race/Ethnicity:	N	%	N	%	N	%	N
White NH	851	93%	2	<1%	60	7%	913
Black NH	272	55%	4	1%	215	44%	491
Hispanic	156	34%	163	36%	136	30%	455
APÍ	10	32%	0	0%	21	68%	31
All Males	1,309	68%	169	9%	435	23%	1,913

¹ Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

³ Ninety-three percent of people diagnosed with HIV infection from 2002-2004 who were born in a US dependency were born in Puerto Rico and 7% were born in an unknown US dependency

NH = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

³ Ninety-three percent of people diagnosed with HIV infection from 2002-2004 who were born in a US dependency were born in Puerto Rico and 7% were born in an unknown US dependency

NH = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table 22. *Females* diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts, 2002-2004²

	US		Puerto Ri Depende		Non-l	JS	Total
Race/Ethnicity:	N	%	N	%	N	%	N
White NH	148	89%	2	1%	16	10%	166
Black NH	150	36%	0	0%	265	64%	415
Hispanic	88	37%	103	43%	50	21%	241
API	1	7%	0	0%	14	93%	15
All Females	402	47%	105	12%	350	41%	857

¹ Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers

Table 23. People diagnosed with HIV infection by race/ethnicity¹ and exposure mode: Massachusetts, 2002-2004²

	White	e NH	Black	NH	Hispa	nic	AP	I
Exposure								
Mode:	N	%	N	%	N	%	N	%
MSM	621	58%	109	12%	135	19%	12	26%
IDU	159	15%	102	11%	169	24%	2	4%
MSM/IDU	41	4%	6	1%	9	1%	0	0%
HTSX	54	5%	150	17%	129	19%	8	17%
Other	13	1%	8	1%	15	2%	0	0%
Total								
Undetermined	191	18%	531	58%	239	35%	24	52%
Pres. HTSX ⁴	110	10%	365	40%	151	22%	10	22%
Undetermined ⁵	81	8%	166	18%	88	13%	14	30%
Total	1,079	100%	906	100%	696	100%	46	100%

¹ Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

³ Ninety-three percent of people diagnosed with HIV infection from 2002-2004 who were born in a US dependency were born in Puerto Rico and 7% were born in an unknown US dependency

NH = Non-Hispanic, API = Asian/Pacific Islander

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

³ Percentages calculated from a numerator of less than 5 and a denominator of less than 100 are not presented

⁴ Heterosexual sex with partners with unknown risk and HIV status

⁵ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up NH = Non-Hispanic, API = Asian/Pacific Islander, MSM = Male-to-male sex, IDU = Injection Drug Use, HTSX = Heterosexual Sex, Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

Table 24. *Males* diagnosed with HIV infection by race/ethnicity¹ and exposure mode: Massachusetts, 2002-2004³

	White	NH	Black	NH	Hispa	nic	AP	I
Exposure								
Mode:	N	%	N	%	N	%	N	%
MSM	621	68%	109	22%	135	30%	12	39%
IDU	98	11%	70	14%	124	27%	1	3%
MSM/IDU	41	4%	6	1%	9	2%	0	0%
HTSX	20	2%	66	13%	42	9%	1	3%
Other	8	1%	5	1%	8	2%	0	0%
Total								
Undetermined	125	14%	235	48%	137	30%	17	55%
Pres. HTSX ⁴	60	7%	138	28%	79	17%	7	23%
Undetermined ⁵	65	7%	97	20%	58	13%	10	32%
Total	913	100%	491	100%	455	100%	31	100%

Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers

Table 25. *Females* diagnosed with HIV infection by race/ethnicity¹ and exposure mode: Massachusetts, 2002-2004²

	White	NH	Black	NH	Hispa	ınic	AP	I
Exposure								
Mode:	N	%	N	%	N	%	N	%
	,							
IDU	61	37%	32	8%	45	19%	1	7%
HTSX	34	20%	84	20%	87	36%	7	47%
Other	5	3%	3	1%	7	3%	0	0%
Total								
Undetermined	66	40%	296	72%	102	42%	7	47%
Pres. HTSX ⁴	50	30%	227	55%	72	30%	3	20%
Undetermined ⁵	16	10%	69	17%	30	12%	4	27%
Total	166	100%	415	100%	241	100%	15	100%

¹ Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

³ Percentages calculated from a numerator of less than 5 and a denominator of less than 100 are not presented

⁴ Heterosexual sex with partners with unknown risk and HIV status

⁵ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up NH = Non-Hispanic, API = Asian/Pacific Islander, MSM = Male-to-male sex, IDU = Injection Drug Use, HTSX = Heterosexual Sex, Pres. HTSX = Presumed Heterosexual Sex

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;

³ Percentages calculated from a numerator of less than 5 and a denominator of less than 100 are not presented

⁴ Heterosexual sex with partners with unknown risk and HIV status

⁵ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up NH = Non-Hispanic, API = Asian/Pacific Islander, MSM = Male-to-male sex, IDU = Injection Drug Use, HTSX = Heterosexual Sex, Pres. HTSX = Presumed Heterosexual Sex

Table 26. People diagnosed with HIV infection by Health Service Region (HSR)¹ and gender: Massachusetts, 2002-2004²

	Male		Femal	е	Total
Health Service Region:	N	%	N	%	N
Davida HOD	000	7.40/	0.45	000/	205
Boston HSR	680	74%	245	26%	925
Central HSR	145	56%	114	44%	259
Metro West HSR	251	68%	118	32%	369
Northeast HSR	278	66%	145	34%	423
Southeast HSR	267	74%	94	26%	361
Western HSR	210	62%	128	38%	338
Prisons ³	82	86%	13	14%	95
MA Total	1,913	69%	857	31%	2,770

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence); See Epidemiologic Profile General Appendices, Health Service Region Maps, available at http://www.mass.gov/dph/aids/research/profile2005/app5 hrs maps.pdf for configuration of health service regions ² Poffects was a feet with the configuration of health service regions

Table 27. Percentage distribution of people diagnosed with HIV infection by Health Service Region (HSR)¹ and race/ethnicity: Massachusetts, 2002-2004²

	White NH	Black NH	Hispanic	API	AI/AN	Total
Boston HSR	37%	41%	19%	1%	0%	925
Central HSR	39%	32%	27%	1%	0%	259
Metro West HSR	44%	38%	14%	2%	0%	369
Northeast HSR	37%	29%	28%	5%	<1%	423
Southeast HSR	58%	21%	18%	1%	1%	361
Western HSR	24%	21%	53%	1%	0%	338
Prisons ³	27%	35%	36%	0%	1%	95
MA Total	39%	33%	25%	2%	<1%	2,770

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence); See Epidemiologic Profile General Appendices, Health Service Region Maps, available at

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
³ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility

http://www.mass.gov/dph/aids/research/profile2005/app5 hrs maps.pdf for configuration of health service regions Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

³ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native

Table 28. Percent of people diagnosed with HIV infection by Health Service Region (HSR)¹ and exposure mode: Massachusetts, 2002-2004²

Health Service			MSM/			Pres.		
Region:	MSM	IDU	IDU	HTSX	Other	HTSX ³	Undet.4	Total
Boston HSR	42%	10%	2%	11%	1%	20%	12%	925
Central HSR	20%	22%	2%	13%	2%	30%	11%	259
Metro West HSR	31%	8%	1%	11%	2%	31%	17%	369
Northeast HSR	29%	14%	2%	12%	1%	26%	16%	423
Southeast HSR	36%	19%	2%	12%	1%	17%	13%	361
Western HSR	20%	24%	2%	18%	2%	22%	11%	338
Prison ⁵	5%	53%	3%	12%	0%	23%	4%	95
MA Total	32%	16%	2%	13%	1%	23%	13%	2,770

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence); See Epidemiologic Profile General Appendices, Health Service Region Maps, available at

MSM = Male-to-male sex, IDU = Injection Drug Use, HTSX = Heterosexual Sex, Pres. HTSX = Presumed Heterosexual Sex, Undet. = Undetermined

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/05

http://www.mass.gov/dph/aids/research/profile2005/app5 hrs maps.pdf for configuration of health service regions Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

³ Heterosexual sex with partners with unknown risk and HIV status

⁴ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up

⁵ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility

Profile of people testing for HIV at publicly-funded sites

Technical Notes:

Program utilization data for HIV/AIDS prevention services describe people who utilize these services and who may be at risk for HIV infection. Data from HIV testing programs can be used to describe demographics and HIV risk behavior in a population. The following tables contain data on clients utilizing state-funded counseling and testing sites. These settings include community health centers, hospitals, jails, and sexually transmitted disease clinics. An estimated 30% of people who get tested for HIV infection in Massachusetts get tested at one of these sites; therefore, these data are not representative of all people testing for HIV infection in Massachusetts. It is important to note that the data presented in this section represent tests performed and not individual clients; therefore the data may contain more than one test for some people.

Table 29. Number and percent of positive HIV tests ¹ by gender, race/ethnicity, age of client and risk category: Massachusetts, 2004			
HIV Tests by Gender of Client:	Total Tests	Total Positive Results	Percent Positive
Male Female Unknown ²	28,803 16,619 403	317 132 5	1.1% 0.8% 1.2%
HIV Tests by Race/Ethnicity of Client:	Total Tests	Total Positive Results	Percent Positive
White African-American Latino Asian/Asian-American	19,089 8763 11,507 885	102 132 172 2	0.5% 1.5% 1.5% 0.2%
American Indian/Aleutian/Eskimo Haitian Brazilian Portuguese	146 1,141 886 708	1 12 10 3	0.7% 1.1% 1.1% 0.4%
Cape Verdean Other Unknown ²	766 1,186 748	6 11 3 Total	0.8% 0.9% 0.4%
HIV Tests by Age of Client, in Years:	Total Tests	Positive Results	Percent Positive
Under 13 13 to 19 20 to 24 25 to 29 30 to 34 35 to 39 40 to 44 45 to 49 50+	59 3,415 9,587 8,018 6,178 5,716 4,903 3,345 3,873	0 7 39 67 62 82 88 50 50	0.0% 0.2% 0.4% 0.8% 1.0% 1.4% 1.5% 1.5%
Unknown ² HIV Tests by Risk Category ³ :	731 Total Tests	9 Total Positive Results	1.2% Percent Positive
Male-to-male sex (MSM) MSM/IDU Injecting Drug User (IDU) Heterosexual Sex (HTSX) Other/No Identified Risk Total	3,972 197 6,409 32,451 2,796 45,825	108 6 77 218 45 454	2.7% 3.0% 1.2% 0.7% 1.6% 1.0%

¹ Tests performed at publicly funded HIV counseling and testing sites. (People also test for HIV at non-publicly funded sites for whom data are not represented in this table); ² Unknown indicates that the data were missing or unreadable ³ Data collected on possible exposure on the C&T report form were aggregated using the CDC risk hierarchy in order to make these data more comparable to the HIV/AIDS case data. Data Source: MDPH HIV/AIDS Bureau HIV Counseling and Testing Program. Data as of 7/1/05

Technical Notes:

The following tables include data about number of sexual partners and condom use as reported by Massachusetts residents through anonymous telephone interviews in 2004. This ongoing random-digit-dial telephone survey, the Behavioral Risk Factor Surveillance System (BRFSS), covers a broad range of topic areas (including sexuallyrelated risk) and is part of a CDC-funded national survey program.

Sex with multiple partners has historically been correlated with other predictors of HIV transmission. Reducing numbers of sexual partners has been an HIV/STD prevention intervention goal, as has increasing condom use. Data regarding the prevalence of each of these behaviors follows.

	0 Partners	1 Partner	2 + Partners	N ²
Total:	14%	76%	10%	2,687
Age in Years:	0 Partners	1 Partner	2 + Partners	N
18-24	21%	54%	25%	193
25-34	6%	82%	12%	530
35-44	8%	85%	7%	692
45-64	20%	77%	3%	1,272
Sex:	0 Partners	1 Partner	2 + Partners	N
Male	10%	75%	15%	1,125
Female	17%	78%	5%	1,562
Race/Ethnicity:	0 Partners	1 Partner	2 + Partners	N
NATI SE NILL	400/	700/	00/	0.40=
White NH	13%	78%	9%	2,187
Black NH	24%	58%	18%	120
Hispanic Asian	18% 14%	65% 79%	17% 7%	258 52

^{1 &}quot;Number of sexual partners in past year" is a state-added question administered to a sub-sample of BRFSS respondents.

² Only respondents with known values are included in this table. Column sub-totals may not equal overall total due to missing values.

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2004

Table 31. Number of sexual partners in the past year	, <i>male</i> BRFSS
respondents ages 18-64: Massachusetts, 2004	

	0 Partners	1 Partner	2+ Partners	N^2
Total Males	10%	75%	15%	1,125
Age in Years:	0 Partners	1 Partner	2+ Partners	N
18-24	22%	41%	37%	79
25-34	5%	78%	17%	207
35-44	5%	83%	12%	293
45-64	13%	81%	6%	546
Race/Ethnicity ³ :	0 Partners	1 Partner	2+ Partners	N
White NH	10%	78%	12%	923
Black NH	12%	60%	28%	52
Hispanic	15%	61%	24%	95
Sex of Partner ⁴ :	0 Partners	1 Partner	2+ Partners	N
Same Sex	Not Applicable	55%	45%	77
Opposite Sex	Not Applicable	87%	13%	879

NH= Non-Hispanic

¹ "Number of sexual partners in past year" is a state-added question administered to a sub-sample of BRFSS respondents.
² Only respondents with known values are included in this table. Column sub-totals may not equal overall total due to missing values.

3 Data for Asian is not presented due to small numbers

4 Only asked of sexually active adults

Data source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2004

Table 32. Number of sexual partners in the past year	, female BRFSS
respondents ages 18-64 Massachusetts, 2004	

	0 Partners	1 Partner	2+ Partners	N^2
Total Females	17%	78%	5%	1,562
Age in Years:	0 Partners	1 Partner	2+ Partners	N
18-24	20%	66%	14%	114
25-34 35-44	7% 10%	86% 87%	7% 3%	323 399
45-64	28%	71%	1%	726
Race/Ethnicity ³ :	0 Partners	1 Partner	2+ Partners	N
White NH	16%	79%	5%	1,264
Black NH	38%	56%	6%	68
Hispanic	21%	71%	8%	163
Sex of Partner ⁴ :	0 Partners	1 Partner	2+ Partners	N
Same sex	Not Applicable	95%	5%	62
Opposite sex	Not Applicable	95%	5%	1109

NH= Non-Hispanic

1 "Number of sexual partners in past year" is a state-added question administered to a sub-sample of BRFSS respondents.

2 Only respondents with known values are included in this table. Column sub-totals may not equal overall total due to missing values.

3 Data for Asian is not presented due to small numbers

4 Only asked of sexually active adults
Data source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2004

	% Used Condom	Total N
Total:	25%	2,168
Sex:	% Used Condom	Total N
Male	26%	98
Female	23%	1,18
Race/Ethnicity ³ :	% Used Condom	Total N
White NH	22%	1,77
Black NH	37%	9.
Hispanic	38%	19
Number of Partners:	% Used Condom	Total N
1	20%	1,89
2	55%	110
3+	62%	12
Sex of Partner:	% Used Condom	Total N
Same Sex – Male	48%	8:
Opposite Sex – Male	24%	883
Same Sex – Female	4%	6
Opposite Sex – Female	24%	1,12
NH= Non-Hispanic ¹ Only asked of sexually active adults ² Only respondents with known values are inclivalues. ³ Data for Asian is not presented due to small i	uded in this table. Column sub-totals may not equal ove	erall total due to missing

Table 34. Ever tested for HIV, BRFSS respondents age 18-64:
Massachusetts, 1994 – 2004

Year:	Total N ¹	% Ever Tested for HIV
1995	2,758	37%
1996	2,504	39%
1997	3,035	46%
1998	3,995	42%
1999	6,128	46%
2000	6,804	48%
2001	7,113	47%
2002	5,618	47%
2003	5,605	47%
2004	5,906	46%

¹ This question was one of the core federal questions posed to all respondents to the annual BRFSS between the ages of 18-64. Respondents with missing values for this item were not included in this table.

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 1993-2004

Table 35. Ever tested for HIV by number of sexual partners in past year¹, BRFSS respondents age 18-64: Massachusetts, 2004

	Total N ²	% Ever Tested for HIV
Total:	5,906	46%
Number of Partners:	Total N	% Ever Tested for HIV
0	521	34%
1	1,844	49%
2	119	53%
3+	127	71%

¹ "Number of sexual partners in past year" is a state-added question administered to a sub-sample of BRFSS respondents.

² Total number of participants that responded to both number of sexual partners and ever tested for HIV. Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2004